

# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/US2005/010631

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C10L1/10 C10M1 17/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C10L C10M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 061 161 A (BASIC INCORPORATED) 8 March 1967 (1967-03-08) page 1, line 65 - page 3, line 52; examples 1,2	1-7,9,10
P,X	WO 2004/026996 A (SYSTEMSEPARATION SWEDEN AB; WALLENBECK, ANDERS; STROEM, GUNNAR; FORSBE) 1 April 2004 (2004-04-01) cited in the application examples	1-11,14
X	EP 0 288 296 A (BP CHEMICALS LIMITED; LUBRIZOL ADIBIS HOLDINGS (UK) LIMITED) 26 October 1988 (1988-10-26) examples	1-10
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

26 July 2005

Date of mailing of the international search report

03/08/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Kazemi, P

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 200 544 A (FORSBERG, JOHN W) 29 April 1980 (1980-04-29) examples -----	1-5, 10
X	GB 1 315 304 A (COALITE CHEMICAL PRODUCTS LTD) 2 May 1973 (1973-05-02) page 1, line 65 - page 2, line 40; examples -----	1-7, 9, 10
X	US 3 547 605 A (THOMAS E. CORNELIUS ET AL) 15 December 1970 (1970-12-15) table 1 -----	1-5, 10, 11, 13, 14
X	GB 1 180 533 A (CANADIAN PATENTS AND DEVELOPMENT LTD) 4 February 1970 (1970-02-04) page 1, lines 59-72; claims 1, 7, 8, 12 -----	1-5, 11, 13, 14
X	US 3 525 599 A (GERALD L. NIELD) 25 August 1970 (1970-08-25) column 2, lines 34-42; examples 11, 13, 17 column 4, lines 7-28 -----	1, 2, 4, 5, 10-13
X	US 2 434 539 A (BEERBOWER ALAN ET AL) 13 January 1948 (1948-01-13) cited in the application column 2, line 16 - column 3, line 47 -----	6-9
X	US 2 394 907 A (GALLAY WILFRED ET AL) 12 February 1946 (1946-02-12) cited in the application page 1, left-hand column, line 44 - page 1, right-hand column, line 12; claims; examples -----	6-9

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### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 10

A composition comprising a dispersion of a metal base (MeOH or other or mixture), a surfactant and an organic medium containing less than 2 wt% of water, wherein the metal base is present at greater than 51 wt% solids content (if MeOH) and greater than 15 wt% solids content (if other metal base) (claims 1-5).

A grease composition comprising the same plus carboxylic acid (claim 10).

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2. claims: 6-9

A process for preparing a grease comprising (1) mixing a metal base, a surfactant and an organic medium containing less than 2 wt% of water, (2) grinding the slurry, (3) optionally heating (40-190°C) and (4) optionally reacting the dispersion of steps (2)-(3) with a carboxylic acid.

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3. claims: 11-15

A fuel composition comprising (a) a dispersion comprising a surfactant other than fatty acid, a metal base with a solids content greater than 35 wt% and an organic medium containing less than 2 wt% water, and (b) a fuel.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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